

### AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application:

#### **Listing of Claims:**

1. (Currently Amended) A system that ranks search results, comprising a processor executing the following components:

a ~~first~~ ranking component that determines relevance of respective search results generated from a search associated with one or more of a Usenet, a discussion thread, a blog, an archived community discussion, or a chat room *via* one or more feature-based relevance functions wherein features of the function are based at least on one or more global thread properties comprising at least a thread depth defined over a thread comprising one or more messages that include at least a message core and a message body, one or more posting-specific thread properties and attributes of a person posting the messages, the attributes comprising at least a number of posting per time duration, a number of newsgroups posted to and a number of postings that have no responses; and

a ~~second~~ function generator component that generates the relevance functions such that ~~ordered~~ search results are ordered based on their respective relevances; ~~wherein~~ the search is selectively scoped based at least on a structure of the thread comprising the one or more messages wherein at least one of the features is based on inferred labels on edges between an existing message in the thread and one or more of a parent or child of the message wherein the labels determine nature of a respective message in the thread and are automatically derived from content of the one or more messages within the thread.

2. (Previously Presented) The system of claim 1, the one or more global thread properties include at least one of: a number of messages in a thread, a thread maximal branching factor, a thread linguistic property; the one or more posting-specific thread properties comprise at least one of a posting depth, a number of descendents of a posting, a number of children in a posting, and the relevance functions utilize one or more newsgroups based on a probability that a posting

is relevant given that the posting is from a particular newsgroup, or a probability a posting from a particular newsgroup is relevant given a query.

3. (Previously Presented) The system of claim 1, the relevance functions are generated based on one or more of scoped lexical information, a digital artifact attribute, or a source repository attribute.
4. (Canceled)
5. (Previously Presented) The system of claim 1, the search results are further associated with searches over data associated with one or more of, a mailing list, a wiky, a web page, a database or a list.
6. (Currently Amended) The system of claim 1, ~~further comprising a~~ the function generator ~~that creates~~ generates the relevance functions based on at least one of a training set, a feature set, a probability, an inference, a classifier, a heuristic, or user specified criteria.
7. (Original) The system of claim 1, the relevance functions are refined based on a user's response to the ranked search results.
8. (Original) The system of claim 1, the relevance functions are probabilities that respective digital artifacts are relevant to a search.
9. (Previously Presented) The system of claim 8, at least one relevance function is defined as  $\text{Relevance}(V(\text{posting}, \text{query}))$ , which is a relevance weight of a posting given a query, wherein function  $V(\text{posting}, \text{query})$  returns a set of features and feature values for a particular posting and query.
10. (Original) The system of claim 1, the relevance functions associate relevance weights with respective search results and the ranking of the search results is based on the relevance weights.

11. (Original) The system of claim 1, the relevance functions are generated *via* machine learning.
12. (Previously Presented) The system of claim 11, the machine learning includes one or more of a linear regression, a non-linear regression, or a support vector machine.
13. (Previously Presented) The system of claim 1, the one or more feature-based relevance functions utilize features that are obtained by extracting information from digital artifacts.
14. (Previously Presented) The system of claim 1, further comprising a thresholding component that defines one or more acceptable relevance levels in order to mitigate providing non-relevant search results to a user.
15. (Previously Presented) The system of claim 14, the acceptable relevance levels are configured for at least one of an application and the user.
16. (Previously Presented) The system of claim 14, the acceptable relevance levels dynamically adjust based on the user's response to search results.
- 17 – 33. (Canceled)
34. (Currently Amended) The system of claim 1, the one or more features based relevance functions determine relevance of a posting by utilizing ~~utilize features that comprise~~ an occurrence of one or more of a word, a word class or a phrase in a thread position relative to [[a]]the posting.
35. (Canceled)
36. (Canceled)

37. (Currently Amended) A system that ranks search results comprising the following means stored in a computer memory:

means for determining relevance of respective search results selected from one or more of a Usenet, a discussion thread, a blog, an archived community discussion, or a chat room *via* one or more feature-based relevance functions wherein features are based at least on one or more of global thread properties comprising at least a thread depth, one or more posting-specific thread properties and attributes of a person generating the postings, the attributes comprising at least a number of posting per time duration, a number of newsgroups posted to and a number of postings that have no responses; and

means for generating the relevance functions that facilitate ordering the ~~ordered~~ search results based on their respective relevances wherein the search has variable scope based at least on a structure of the thread comprising the one or more messages comprising at least a message core with text of a single message within the ~~global~~ thread and a message body including text of a plurality of messages structurally related to the single message within the ~~global~~ thread, at least one of the features is based on labels on edges between a message in the thread and one or more of a parent or child of the message wherein the labels are automatically derived from content of the one or more messages within the thread.

38. (Previously Presented) The system of claim 37, further comprising means for automatically training the relevance functions from labeled data.

39. (Previously Presented) The system of claim 3, wherein the scoped lexical information indicates extent of a search, wherein the scope is limited or includes all repositories and associated information.

40. (Previously Presented) The system of claim 39, wherein the search is scoped over one or more of at least a message core, a complete message body, all messages in the thread, or all messages in a sub tree with a particular posting as a root.

41. (Previously Presented) The system of claim 40, the one or more features based relevance functions utilize one or more of text-based relevance scores for respective scoping.

42. (Previously Presented) The system of claim 1, wherein the message core comprises text of a single message and the message body comprises text of a plurality of messages comprising one or more of prior messages or descendents.